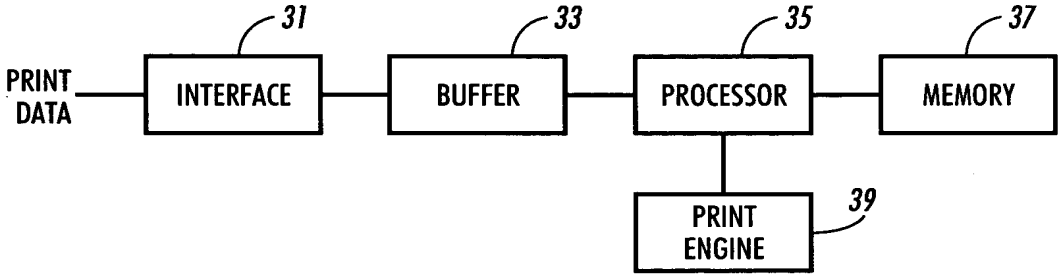
PRINT DATA
INTERFACE
31
BUFFER
33
PROCESSOR
35
MEMORY
37
PRINT ENGINE
39

FIG. 1

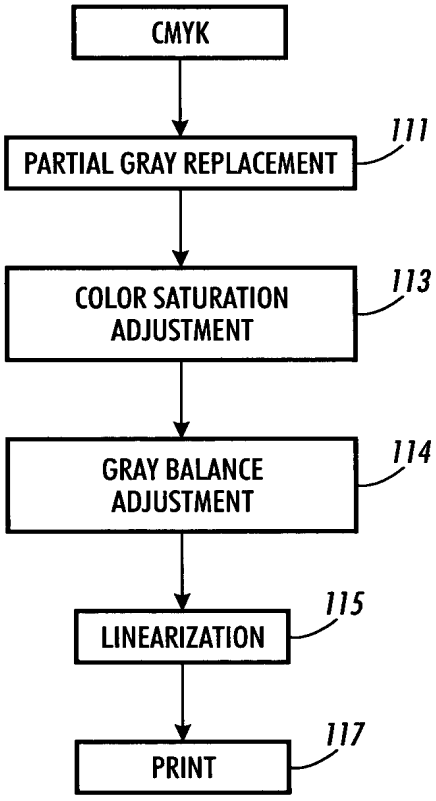
CMYK
PARTIAL GRAY REPLACEMENT
111
COLOR SATURATION ADJUSTMENT
113
GRAY BALANCE ADJUSTMENT
114
LINEARIZATION
115
PRINT
117

FIG. 2

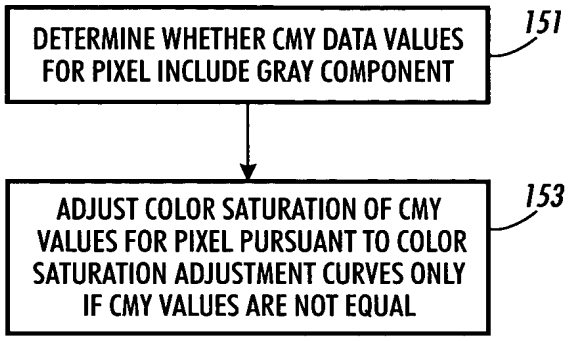
DETERMINE WHETHER CMY DATA VALUES FOR PIXEL INCLUDE GRAY COMPONENT
151
ADJUST COLOR SATURATION OF CMY VALUES FOR PIXEL PURSUANT TO COLOR SATURATION ADJUSTMENT CURVES ONLY IF CMY VALUES ARE NOT EQUAL
153

FIG. 3

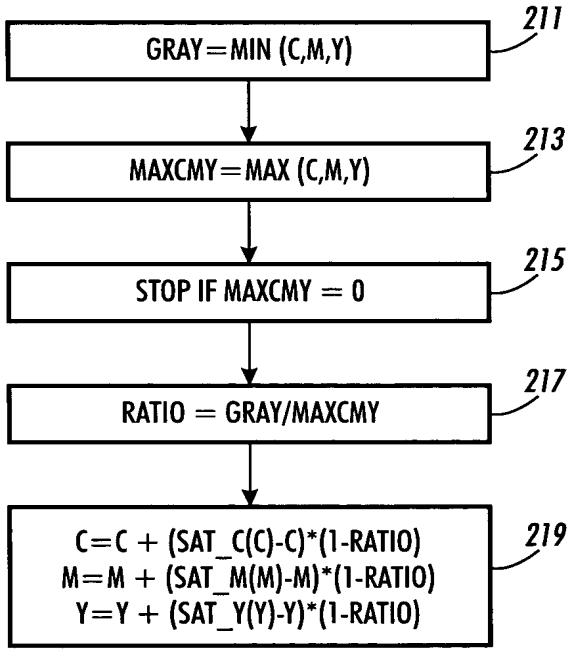
GRAY=MIN (C,M,Y)
211
MAXCMY=MAX (C,M,Y)
213
STOP IF MAXCMY = 0
215
RATIO = GRAY/MAXCMY
217
C=C + (SAT_C(C)-C)*(1-RATIO)
M=M + (SAT_M(M)-M)*(1-RATIO)
Y=Y + (SAT_Y(Y)-Y)*(1-RATIO)
219

FIG. 4

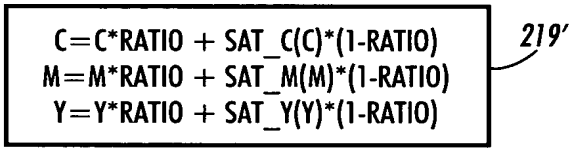
C=C*RATIO + SAT_C(C)*(1-RATIO)
M=M*RATIO + SAT_M(M)*(1-RATIO)
Y=Y*RATIO + SAT_Y(Y)*(1-RATIO)
219'

FIG. 5

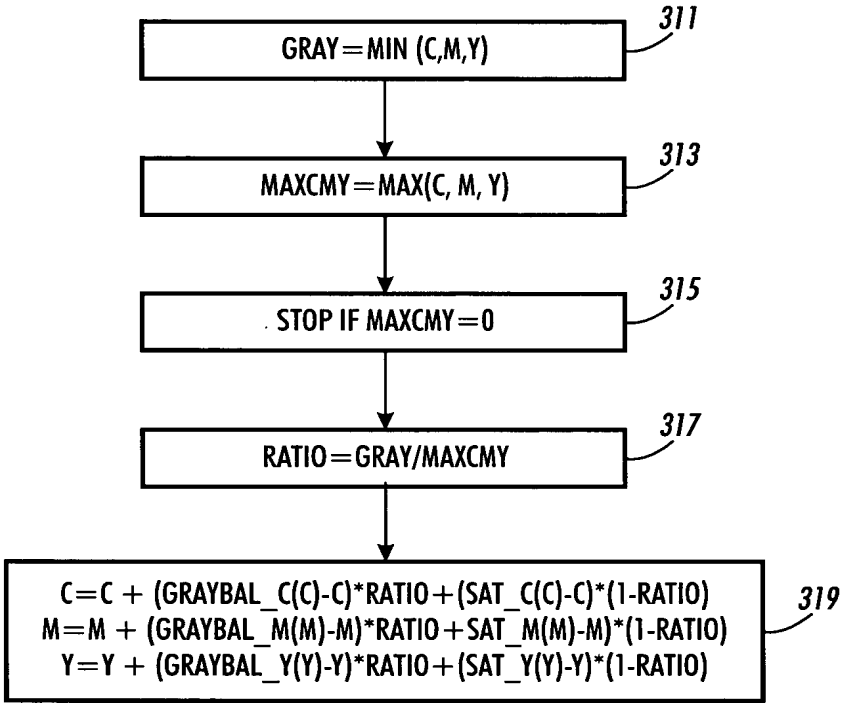
GRAY=MIN (C,M,Y)
311
MAXCMY=MAX(C, M, Y)
313
STOP IF MAXCMY=0
315
RATIO=GRAY/MAXCMY
317
C=C + (GRAYBAL_C(C)-C)*RATIO+(SAT_C(C)-C)*(1-RATIO)
M=M + (GRAYBAL_M(M)-M)*RATIO+SAT_M(M)-M)*(1-RATIO)
Y=Y + (GRAYBAL_Y(Y)-Y)*RATIO+(SAT_Y(Y)-Y)*(1-RATIO)
319

FIG. 6

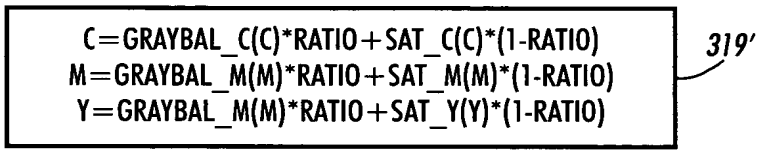
C=GRAYBAL_C(C)*RATIO+SAT_C(C)*(1-RATIO)
M=GRAYBAL_M(M)*RATIO+SAT_M(M)*(1-RATIO)
Y=GRAYBAL_M(M)*RATIO+SAT_Y(Y)*(1-RATIO)
319'

FIG. 7

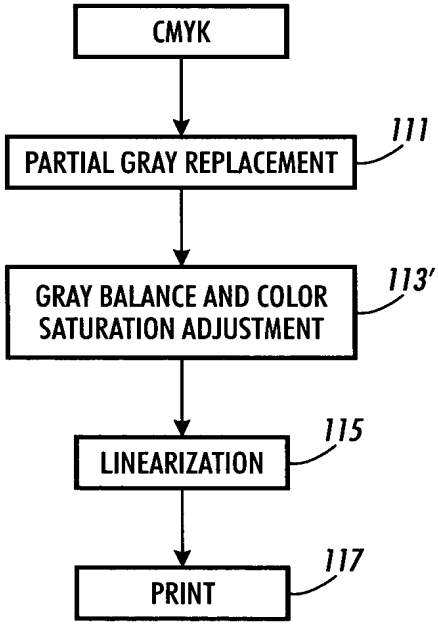
CMYK
PARTIAL GRAY REPLACEMENT
111
GRAY BALANCE AND COLOR SATURATION ADJUSTMENT
113'
LINEARIZATION
115
PRINT
117

FIG. 8